NON-PUBLIC?: N
ACCESSION #: 9507030117
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Callaway Plant Unit 1 PAGE: 1 OF 3

DOCKET NUMBER: 05000483

TITLE: REACTOR TRIP DUE TO LOW REACTOR LOOP FLOW WHEN REACTOR COOLANT PUMPS TRIPPED AFTER A TREE LIMB WAS BLOWN ONTO POWER LINES

EVENT DATE: 06/08/95 LER #: 95-004-00 REPORT DATE: 06/23/95

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: H. D. Bono, Supervising Engineer, TELEPHONE: (314) 676-4428
Site Licensing

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

On 6/8/95 at 0553 CDT, a reactor trip was automatically initiated due to Reactor Coolant System low flow caused by the tripping of Reactor Coolant Pumps (RCPs) "C" and "D". The pumps were tripped via actuation of 13.8 KV bus PA02 negative phase sequence voltage relays (PA02132471B2 and PA02142472B2) in response to a two phase line to line fault caused by a tree limb blown onto one of two sets of transmission lines to the non-safety related intake water supply building. PA0210, the intake building feeder breaker fed from PA02, tripped due to time overcurrent relay (PA0210-250-251/f) actuation after the RCPs tripped. Opening of PA0210 led to tripping of various loads at the intake building. The negative phase sequence voltage relays actuated before PA0210 due to setpoint drift from the factory setting. The settings varied

approximately 8% from the factory setting of the negative sequence filter. Licensed operators responded to the event and the plant was stabilized in accordance with emergency procedures. All safety-related systems performed as designed. The plant was in Mode 1 - Power Operations at 100% reactor power the time of the trip.

The limb was removed from the lines. A walkdown of the power lines from the plant to the intake structure was performed. No additional problems were found. The negative sequence filter in each of the relays in PA02 were checked and adjusted accordingly. Preventative maintenance task scope and frequency will be evaluated. In addition, enhanced protective relaying schemes will be evaluated. The plant was returned to Mode 1 - Power Operations at 1817 on 6/8/95.

END OF ABSTRACT



BASIS FOR REPORTABILITY:

This event is reportable per the requirements of 10CFR50.73(a)(2)(iv) to report automatic reactor protection system and engineered safety feature actuations.

PLANT CONDITION AT TIME OF EVENT:

Mode 1 - Power Operations; 100% Reactor Power

Reactor Coolant System (RCS): Temperature (average) - 588.6 degrees F

Pressure - 2231 psig

DESCRIPTION OF EVENT:

On 6/8/95 at 0553 CDT, a reactor trip was automatically initiated due to Reactor Coolant System (RCS) low flow caused by the tripping of Reactor Coolant Pumps (RCPs)(1)"C" and "D". The pumps were tripped via actuation of 13.8 KV bus PA02(2) negative phase sequence voltage relays (PA02132471B2 and PA02142472B2) (3) in response to a two phase line to line fault caused by a tree limb blown onto one of two sets of transmission lines to the non-safety related intake water supply building. PA0210(4), the intake building feeder breaker fed from PA02, tripped due to time overcurrent relay (PA02-250-251/f)(5) actuation after the RCPs tripped. Opening of PA0210 led to tripping of various loads at the intake building. The negative phase sequence voltage relays actuated before PA0210 due to setpoint drift from the factory setting. The

settings varied approximately 8% from the factory setting of the negative sequence filter. Licensed operators responded to the event and the plant was stabilized in accordance with emergency procedures. All safety-related systems performed as designed.

ROOT CAUSE:

The negative sequence relays drifted 8% causing the "C" and "D" RCPs to trip on the initiation of a two phase line to line fault caused by a tree limb blowing onto one of the intake feeder lines.



CORRECTIVE ACTIONS:

The limb was removed from the lines. A walkdown of the power lines from the plant to the intake structure was performed. No additional problems were found. The negative sequence filter in each of the relays in PA02 were checked and adjusted accordingly. Preventative maintenance task scope and frequency will be evaluated. In addition, enhanced protective relaying schemes will be evaluated. The plant was returned to Mode 1 - Power Operations at 1817 on 6/8/95.

SAFETY SIGNIFICANCE:

The reactor automatically tripped per design due to RCS low flow. Plant safety features functioned as required. There was no threat to the public health or safety.

PREVIOUS OCCURRENCES:

None.

FOOTNOTES:

The system and component codes listed below are from IEEE Standards 805-1984 and 803A-1983 respectively:

(1) System - AB, Component - P

(2) System - EA, Component - BU

(3) System - EA, Component - 47

(4) System - EA, Component - 52

(5) System - EA, Component - 94

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Callaway Plant
Post Office Box 620
Fulton, Missouri 65251

Union
Electric
June 23, 1995

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

ULNRC-3228

Gentlemen:

DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
FACILITY OPERATING LICENSE NPF-30
LICENSEE EVENT REPORT 95-004-00
REACTOR TRIP DUE TO LOW REACTOR LOOP FLOW WHEN
REACTOR COOLANT PUMPS TRIPPED AFTER A TREE LIMB
WAS BLOWN ONTO POWER LINES

The enclosed Licensee Event Report is submitted pursuant to 10CFR
50.73(a)(2)(iv) concerning a reactor trip due to low reactor loop flow.

R. D. Affolter
Manager, Callaway Plant

RDA/HDB/MAH/cmw

Enclosure

cc: Distribution attached

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cc distribution for ULNRC-3228

Mr. J. B. Martin
Regional Administrator

U. S. Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

Mr. L. Raynard Wharton (2 copies)
Licensing Project Manager
U. S. Nuclear Regulatory Commission
OWFN - Mail Stop 13E21
Washington, D. C. 20555

Manager, Electric Department
Missouri Public Service Commission
P. O. Box 360
Jefferson City, MO 65102

Records Center
Institute of Nuclear Power Operations
700 Galleria Parkway
Atlanta, GA 30339

Mr. Steve Wideman
Supervisor, Licensing
Wolf Creek Nuclear Operating Corporation
P. O. Box 411
Burlington, KS 66839

Mr. M. J. Farber
Chief, Reactor Projects Section III A
U. S. Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, Illinois
60532-4351

Mr. Thomas A. Baxter
Shaw, Pittman, Potts & Trowbridge
2300 N. Street N.W.
Washington, D.C. 20037

NRC Senior Resident Inspector

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